```
FILE 'HOME' ENTERED AT 02:46:01 ON 09 FEB 2004

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY     SESSION
FULL ESTIMATED COST                                     0.21        0.21

FILE 'CAPLUS' ENTERED AT 02:46:16 ON 09 FEB 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 9 Feb 2004  VOL 140 ISS 7
FILE LAST UPDATED: 8 Feb 2004  (20040208/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> E ADAMS STEVEN P/AU 25
E1            1     ADAMS STEVEN LESTER/AU
E2            1     ADAMS STEVEN M/AU
E3           72 --> ADAMS STEVEN P/AU
E4           13     ADAMS STEVEN PAUL/AU
E5            4     ADAMS STEVEN R/AU
E6            4     ADAMS STEVEN W/AU
E7            1     ADAMS STEVEN WADE/AU
E8            1     ADAMS STEWARD SANDERS/AU
E9            7     ADAMS STEWART S/AU
E10          19     ADAMS STEWART SANDERS/AU
E11           1     ADAMS STEWART T/AU
E12           1     ADAMS STEWERT SANDERS/AU
E13           1     ADAMS STICH J/AU
E14           2     ADAMS STUART/AU
E15           1     ADAMS STUART J/AU
E16           2     ADAMS STUART L/AU
E17           1     ADAMS STUART LYLE/AU
E18           1     ADAMS STUART P/AU
E19           1     ADAMS STUART SANDERS/AU
E20           3     ADAMS SUE/AU
E21          21     ADAMS SUSAN/AU
E22           2     ADAMS SUSAN A/AU
E23           1     ADAMS SUSAN B/AU
E24           1     ADAMS SUSAN BRAVER/AU
E25           5     ADAMS SUSAN E/AU

=> S (E3 OR E4) AND (CELL ADHESION)
            72 "ADAMS STEVEN P"/AU
            13 "ADAMS STEVEN PAUL"/AU
       1739368 CELL
```

```
       1550754 CELLS
       2334466 CELL
                 (CELL OR CELLS)
        231028 ADHESION
          3117 ADHESIONS
        231990 ADHESION
                 (ADHESION OR ADHESIONS)
         36837 CELL ADHESION
                 (CELL(W)ADHESION)
L1          10 ("ADAMS STEVEN P"/AU OR "ADAMS STEVEN PAUL"/AU) AND (CELL ADHESION)

=> DIS L1 1- IBIB IABS
YOU HAVE REQUESTED DATA FROM 10 ANSWERS - CONTINUE? Y/(N):Y

L1   ANSWER 1 OF 10  CAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:        2002:813789  CAPLUS
DOCUMENT NUMBER:         138:280734
TITLE:                   3D QSAR (COMFA) of a series of potent and highly
                         selective VLA-4 antagonists
AUTHOR(S):               Singh, Juswinder; Van Vlijmen, Herman; Lee,
                         Wen-Cherng; Liao, Yusheng; Lin, Ko-Chung; Ateeq,
                         Humayun; Cuervo, Julio; Zimmerman, Craig; Hammond,
                         Charles; Karpusas, Michael; Palmer, Rex;
                         Chattopadhyay, Tapan; Adams, Steven P.
CORPORATE SOURCE:        Biogen Inc, Cambridge, MA, 02142, USA
SOURCE:                  Journal of Computer-Aided Molecular Design (2002),
                         16(3), 201-211
                         CODEN: JCADEQ; ISSN: 0920-654X
PUBLISHER:               Kluwer Academic Publishers
DOCUMENT TYPE:           Journal
LANGUAGE:                English
ABSTRACT:
The integrin VLA-4 (α4β1) is involved in the migration of white
blood cells to sites of inflammation, and is implicated in the pathol. of a
variety of diseases including asthma and multiple sclerosis.  We report the
structure-activity relationships of a series of VLA-4 antagonists that were
based upon the integrin-binding sequence of the connecting segment peptide of
fibronectin (Leu-Asp-Val), and of VCAM-1 (Ile-Asp-Ser), both natural ligands of
VLA-4.  We explore variation in the ligand derived peptide portion of these
antagonists and also in the novel N-terminal cap, which have discovered through
chemical optimization, and which confers high affinity and selectivity.  Using the
x-ray derived conformation of the Ile-Asp-Ser region of VCAM-1, we rationalize
the structure-activity relationships of these antagonists using 3D QSAR
(COMFA).  The COMFA model was found to be highly predictive with a
cross-validated RCV2 of 0.7 and a PRESS of 0.49.  The robustness of the model
was confirmed by testing the influence of various parameters, including grid
size, column filtering, as well as the role of orientation of the aligned mols.
Our results suggest that the VCAM-1 structure is useful in generating highly
predictive models of our VLA-4 antagonists.  The COMFA model coupled with the
knowledge that the peptide amides are tolerant to methylation should prove
useful in future peptidomimetic design studies.

REFERENCE COUNT:        26    THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS
                              RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1   ANSWER 2 OF 10  CAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:        2002:434328  CAPLUS
DOCUMENT NUMBER:         137:163322
TITLE:                   Identification of Potent and Novel α4β1
                         Antagonists Using in Silico Screening
AUTHOR(S):               Singh, Juswinder; van Vlijmen, Herman; Liao, Yusheng;
                         Lee, Wen-Cherng; Cornebise, Mark; Harris, Mary; Shu,
```

I-hsiang; Gill, Alan; Cuervo, Julio H.; Abraham, William M.; **Adams, Steven P.**

CORPORATE SOURCE: Department of Drug Design and Evaluation, Biogen Inc., Cambridge, MA, 02142, USA

SOURCE: Journal of Medicinal Chemistry (2002), 45(14), 2988-2993
CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

ABSTRACT:
The antigen α4β1 (very late antigen-4, VLA-4) plays an important role in the migration of white blood cells to sites of inflammation. It has been implicated in the pathol. of a variety of diseases including asthma, multiple sclerosis, and rheumatoid arthritis. The authors describe a series of potent inhibitors of α4β1 that were discovered using computational screening for replacements of the peptide region of an existing tetrapeptide-based α4β1 inhibitor (4-[N'-(2-methylphenyl)ureido]phenylacetyl-Leu-Asp-Val) (I) derived from fibronectin. The search query was constructed using a model of I that was based upon the x-ray conformation of the related integrin-binding region of vascular ***cell*** **adhesion** mol.-1 (VCAM-1). The 3D search query consisted of the N-terminal cap and the carboxyl side chain of I because, upon the basis of existing structure-activity data on this series, these were known to be critical for high-affinity binding to α4β1. The computational screen identified 12 reagents from a virtual library of 8624 mols. as satisfying the model and the authors synthetic filters. All of the synthesized compds. tested inhibit α4β1 association with VCAM-1, with the most potent compound having an IC50 of 1 nM, comparable to the starting compound Using CATALYST, a 3D QSAR was generated that rationalizes the variation in activities of these α4β1 antagonists. The most potent compound was evaluated in a sheep model of asthma, and a 30 mg nebulized dose was able to inhibit early and late airway responses in allergic sheep following antigen challenge and prevented the development of nonspecific airway hyperresponsiveness to carbachol. Our results demonstrate that it is possible to rapidly identify nonpeptidic replacements of integrin peptide antagonists. This approach should be useful in identification of nonpeptidic α4β1 inhibitors with improved pharmacokinetic properties relative to their peptidic counterparts.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:312019 CAPLUS
DOCUMENT NUMBER: 136:325828

TITLE: Preparation of dipeptide derivatives as **cell adhesion** inhibitors

INVENTOR(S): **Adams, Steven P.**; Lin, Ko-Chung; Lee, Wen-Cherng; Castro, Alfredo C.; Zimmerman, Craig N.; Hammond, Charles E.; Liao, Yu-Sheng; Cuervo, Julio Hernan; Singh, Juswinder

PATENT ASSIGNEE(S): Biogen, Inc., USA
SOURCE: U.S., 50 pp., Cont.-in-part of U.S. 6,306,840.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6376538	B1	20020423	US 1997-875321	19970919

US 6306840	B1	20011023	US 1995-376372	19950123
WO 9622966	A1	19960801	WO 1996-US1349	19960118

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI

RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE

EP 1142867	A2	20011010	EP 2001-107877	19960118

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI

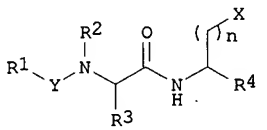
AU 766538	B2	20031016	AU 2000-62432	20001002
US 2003018016	A1	20030123	US 2001-2341	20011023
US 6630512	B2	20031007		

PRIORITY APPLN. INFO.:

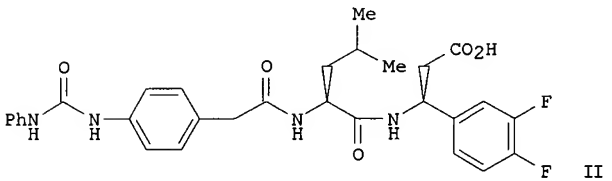
US 1995-376372	A2	19950123
WO 1996-US1349	W	19960118
AU 1996-49115	A3	19960118
EP 1996-905316	A3	19960118
US 1997-875321	A3	19970919

OTHER SOURCE(S): MARPAT 136:325828

GRAPHIC IMAGE:



I



II

ABSTRACT:

Novel dipeptide analogs I [X = CO2H, PO3H-, SO2R5, SO3H, OPO3H-, CO2R4; Y = CO, SO2, PO2; n = 0-2; R1 = optionally substituted alkyl, alkenyl, alkynyl, aryl-fused cycloalkyl, cycloalkenyl, aryl, aralkyl, aralkenyl, aralkynyl, alkoxy, alkenyloxy, aralkoxy, alkylamino, alkenylamino, alkynylamino, aryloxy, arylamino, N-alkylurea-substituted alkyl, heterocyclyl; R2 = H, aryl, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aralkyl; R2NCR3 = heterocyclic ring; R3 = natural, unnatural, modified, or substituted amino acid side chain; R4 = optionally substituted aryl, alkyl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, aralkyl, H, heterocyclyl, heterocyclylcarbonyl, aminocarbonyl, amido, alkylaminocarbonyl, arylaminocarbonyl, acylaminocarbonyl, acyl; R5 = alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, aralkyl, aralkenyl, aralkynyl] are prepared as compds. useful for inhibition and prevention of ***cell*** **adhesion** and **cell adhesion**-mediated pathologies. This invention also relates to pharmaceutical formulations comprising these compds. and methods of using them for inhibition and prevention of **cell adhesion** and **cell** ***adhesion*** -mediated pathologies. The compds. and pharmaceutical compns.

of this invention can be used as therapeutic or prophylactic agents. They are particularly well-suited for treatment of many inflammatory and autoimmune diseases. Thus, β-amino acid-containing dipeptide II, prepared by standard methods,
displayed an IC50 of <50 nM in a **cell adhesion** inhibition assay.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:728856 CAPLUS
DOCUMENT NUMBER: 136:18303
TITLE: Evidence that ligand and metal ion binding to integrin α4β1 are regulated through a coupled equilibrium
AUTHOR(S): Chen, Ling Ling; Whitty, Adrian; Scott, Daniel; Lee, Wen-Cherng; Cornebise, Mark; **Adams, Steven P.** ; Petter, Russell C.; Lobb, Roy R.; Pepinsky, R. Blake
CORPORATE SOURCE: Biogen, Inc., Cambridge, MA, 02142, USA
SOURCE: Journal of Biological Chemistry (2001), 276(39), 36520-36529
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
We have used the highly selective α4β1 inhibitor 2S-[(1-benzenesulfonyl-pyrrolidine-2S-carbonyl)-amino]-4-[4-methyl-2S-(methyl-[2-[4-(3-o-tolyl-ureido)-phenyl]-acetyl]-amino)-pentanoylamino]-butyric acid (BIO7662) as a model ligand to study α4β1 integrin-ligand interactions on Jurkat cells. Binding of [35S]BIO7662 to Jurkat cells was dependent on the presence of divalent cations and could be blocked by treatment with an excess of unlabeled inhibitor or with EDTA. KD values for the binding of BIO7662 to Mn2+-activated α4β1 and to the nonactivated state of the integrin that exists in 1 mM Mg2+, 1 mM Ca2+ were <10 pM, indicating that it has a high affinity for both activated and nonactivated integrin. No binding was observed on α4β1 neg. cells. Through an anal. of the metal ion dependences of ligand binding, several unexpected findings about α4β1 function were made. First, we observed that Ca2+ binding to α4β1 was stimulated by the addition of BIO7662. From solution binding studies on purified α4β1, two types of Ca2+-binding sites were identified, one dependent upon and the other independent of BIO7662 binding. Second, we observed that the metal ion dependence of ligand binding was affected by the affinity of the ligand for α4β1. ED50 values for the metal ion dependence of the binding of BIO7662 and the binding of a lower affinity ligand, BIO1211, differed by 2-fold for Mn2+, 30-fold for Mg2+, and > 1000-fold for Ca2+. Low Ca2+ (ED50 = 5-10 μM) stimulated the binding of BIO7662 to α4β1. The effects of μM Ca2+ closely resembled the effects of Mn2+ on α4β1 function. Third, we observed that the rate of BIO7662 binding was dependent on the metal ion concentration and that the ED50 for the metal ion dependence of BIO7662 binding was affected by the concentration of the BIO7662. These studies point to an even more complex interplay between metal ion and ligand binding than previously appreciated and provide evidence for a three-component coupled equilibrium model for metal ion-dependent binding of ligands to α4β1.

REFERENCE COUNT: 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:317616 CAPLUS
DOCUMENT NUMBER: 131:126890
TITLE: Multiple activation states of integrin α4β1 detected through their different affinities for a small molecule ligand
AUTHOR(S): Chen, Ling Ling; Whitty, Adrian; Lobb, Roy R.; **Adams, Steven P.**; Pepinsky, R. Blake
CORPORATE SOURCE: Biogen, Inc., Cambridge, MA, 02142, USA
SOURCE: Journal of Biological Chemistry (1999), 274(19), 13167-13175
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:

We have used the highly specific α4β1 inhibitor 4-((N'-2-methylphenyl)ureido)-phenylacetyl-leucine-aspartic acid-valine-proline (BIO1211) as a model LDV-containing ligand to study α4β1 integrin-ligand interactions on Jurkat cells under diverse conditions that affect the activation state of α4β1. Observed KD values for BIO1211 binding ranged from a value of 20-40 nM in the nonactivated state of the integrin that exists in 1 mM Mg2+, 1 mm Ca2+ to 100 pM in the activated state seen in 2 mM Mn2+ to 18 pM when binding was measured after coactivation by 2 mM Mn2+ plus 10 μg/mL of the integrin-activating monoclonal antibody TS2/16. The large range in KD values was governed almost exclusively by differences in the dissociation rates of the integrin-BIO1211 complex, which ranged from 0.17 x 10-4 s-1 to >140 x 10-4 s-1. Association rate consts. varied only slightly under the same conditions, all falling in the narrow range from 0.9 to 2.7 x 106 M-1 s-1. The further increase in affinity observed upon co-activation by divalent cations and TS2/16 compared with that observed at saturating concns. of metal ions or TS2/16 alone indicates that the mechanism by which these factors bring about activation are distinct and identified a previously unrecognized high affinity state on α4β1, that had not been detected by conventional assay methods. Similar changes in affinity were observed when the binding properties of vascular **cell adhesion** mol.-1 and CS1 to α4β1 were studied, indicating that the different affinity states detected with BIO1211 are an inherent property of the integrin.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:106085 CAPLUS
DOCUMENT NUMBER: 128:176149
TITLE: Molecular model for VLA-4 inhibitors, and inhibitor identification
INVENTOR(S): Singh, Juswinder; Zheng, Zhongli; Sprague, Peter; Van, Vlijmen Herman W. T.; Castro, Alfredo C.; **Adams, Steven P.**
PATENT ASSIGNEE(S): Biogen, Inc., USA; Singh, Juswinder; Zheng, Zhongli; Sprague, Peter; Van Vlijmen, Herman W. T.; Castro, Alfredo C.; Adams, Steven P.
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 9804913 A1 19980205 WO 1997-US13008 19970724
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
AU 9737385 A1 19980220 AU 1997-37385 19970724
CN 1230110 A 19990929 CN 1997-197953 19970724
US 6552216 B1 20030422 US 1999-236784 19990125
AU 759063 B2 20030403 AU 2001-91330 20011114
PRIORITY APPLN. INFO.: US 1996-22890P P 19960725
US 1996-32786P P 19961206
US 1997-57002P P 19970630
AU 1997-37386 A3 19970724
WO 1997-US13008 W 19970724
OTHER SOURCE(S): MARPAT 128:176149
ABSTRACT:
Pharmacophore models of VLA-4 inhibitors are disclosed, as are methods of identifying novel inhibitors and novel inhibitors identified by these methods.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:98312 CAPLUS
DOCUMENT NUMBER: 128:167449
TITLE: Preparation of aromatic and heterocyclic compounds as **cell adhesion** inhibitors
INVENTOR(S): Zheng, Zhongli; Ensinger, Carol L.; **Adams, Steven P.**
PATENT ASSIGNEE(S): Biogen, Inc., USA; Zheng, Zhongli; Ensinger, Carol L.; Adams, Steven P.
SOURCE: PCT Int. Appl., 221 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9804247	A1	19980205	WO 1997-US13013	19970724
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9737386	A1	19980220	AU 1997-37386	19970724
AU 737372	B2	20010816		
EP 917462	A1	19990526	EP 1997-934289	19970724
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CN 1230110	A	19990929	CN 1997-197953	19970724
NZ 333904	A	20000623	NZ 1997-333904	19970724
JP 2000516596	T2	20001212	JP 1998-508988	19970724
NO 9900338	A	19990325	NO 1999-338	19990125

US 6686350	B1	20040203	US 1999-237273	19990125
AU 759063	B2	20030403	AU 2001-91330	20011114
PRIORITY APPLN. INFO.:			US 1996-22890P	P	19960725
			US 1996-32786P	P	19961206
			AU 1997-37386	A3	19970724
			WO 1997-US13013	W	19970724

OTHER SOURCE(S): MARPAT 128:167449

ABSTRACT:
The present invention relates to novel compds. that are useful for inhibition and prevention of **cell adhesion** and **cell** ***adhesion*** -mediated pathologies (no data). Claimed is a **cell** ***adhesion*** inhibitor comprising a compound AB [A comprises a VLA-4 specificity determinant which does not impart significant IIb/IIIa activity, and B comprises an integrin scaffold]. This invention also relates to pharmaceutical formulations comprising these compds. and methods of using them for inhibition and prevention of **cell adhesion** and ***cell*** **adhesion**-mediated pathologies. The compds. and pharmaceutical compns. of this invention can be used as therapeutic or prophylactic agents. They are particularly well-suited for treatment of many inflammatory and autoimmune diseases.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:207658 CAPLUS
DOCUMENT NUMBER: 126:199840
TITLE: Preparation of peptide derivatives as **cell adhesion** inhibitors
INVENTOR(S): Lin, Ko-Chung; **Adams, Steven P.**; Castro, Alfredo C.; Zimmerman, Craig N.; Cuervo, Julio Hernan; Lee, Wen-Cherng; Hammond, Charles E.; Carter, Mary Beth; Almquist, Ronald G.; Ensinger, Carol Lee
PATENT ASSIGNEE(S): Biogen, Inc., USA; Lin, Ko-Chung; Adams, Steven, P.; Castro, Alfredo, C.; Zimmerman, Craig, N.; Cuervo, Julio, Hernan; Lee, Wen-Cherng; Hammond, Charles, E.; Carter, Mary, Beth; et al.
SOURCE: PCT Int. Appl., 117 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9703094	A1	19970130	WO 1996-US11570	19960711
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
US 6248713	B1	20010619	US 1995-498237	19950711
CA 2226868	AA	19970130	CA 1996-2226868	19960711
AU 9664894	A1	19970210	AU 1996-64894	19960711
AU 716276	B2	20000224		
EP 842196	A1	19980520	EP 1996-924444	19960711
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
CN 1193325	A	19980916	CN 1996-196380	19960711
BR 9609782	A	19990309	BR 1996-9782	19960711

JP 11511124	T2	19990928	JP 1996-505989	19960711		
NZ 312950	A	20000128	NZ 1996-312950	19960711		
EE 3694	B1	20020415	EE 1997-362	19960711		
EE 200200384	A	20021015	EE 2002-200200384	19960711		
FI 9800033	A	19980305	FI 1998-33	19980109		
NO 9800097	A	19980311	NO 1998-97	19980109		
BG 63876	B1	20030430	BG 1998-102241	19980210		
US 6239108	B1	20010529	US 1998-983391	19980810		
US 6596687	B1	20030722	US 2000-482296	20000113		
AU 758886	B2	20030403	AU 2000-36445	20000525		
PRIORITY APPLN. INFO.:			US 1995-498237	A	19950711	
			AU 1996-64894	A3	19960711	
			WO 1996-US11570	W	19960711	

OTHER SOURCE(S): MARPAT 126:199840

ABSTRACT:

The present invention relates to novel peptide derivs. that are useful for inhibition and prevention of **cell adhesion** and **cell** ***adhesion*** -mediated pathologies. This invention also relates to pharmaceutical formulations comprising these compds. and methods of using them for inhibition and prevention of **cell adhesion** and ***cell*** **adhesion**-mediated pathologies. The compds. and pharmaceutical composition of this invention can be used as therapeutic or prophylactic agents. They are particularly well-suited for treatment of many inflammatory and autoimmune diseases. Thus, coupling of 4-(2-MeC6H4NHCONH)C6H4CH2CO2H (preparation given) with protected peptide H-Leu-Asp(OCH2Ph)-Val-OCH2Ph (preparation given), followed by catalytic hydrogenolysis, gave **cell adhesion** inhibitor peptide 4-(2-MeC6H4NHCONH)C6H4CH2CO-Leu-Asp-Val-OH (I). All 408 prepared peptide derivs., including I, inhibited VLA4-dependent adhesion to a bovine serum albumin conjugate with H-Cys-Tyr-Asp-Glu-Leu-Pro-Gln-Leu-Val-Thr-Leu-Pro-His-Pro-Asn-Leu-His-Gly-Pro-Glu-Ile-Leu-Asp-Val-Pro-Ser-Thr-OH, with IC50 values of <1 mM.

L1 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:593835 CAPLUS

DOCUMENT NUMBER: 125:248489

TITLE: Preparation of dipeptide derivatives as **cell adhesion** inhibitors

INVENTOR(S): **Adams, Steven P.**; Lin, Ko-Chung; Lee, Wen-Cherng; Castro, Alfredo C.; Zimmerman, Craig N.; Hammond, Charles E.; Liao, Yu-Sheng; Cuervo, Julio Hernan; Singh, Juswinder

PATENT ASSIGNEE(S): Biogen, Inc., USA

SOURCE: PCT Int. Appl., 169 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9622966	A1	19960801	WO 1996-US1349	19960118
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE				
US 6306840	B1	20011023	US 1995-376372	19950123
CA 2211181	AA	19960801	CA 1996-2211181	19960118

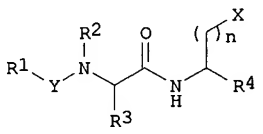
AU 9649115	A1	19960814	AU 1996-49115	19960118
AU 718926	B2	20000504		
EP 805796	A1	19971112	EP 1996-905316	19960118
EP 805796	B1	20021211		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI				
BR 9606778	A	19980106	BR 1996-6778	19960118
CN 1177343	A	19980325	CN 1996-192270	19960118
JP 10513160	T2	19981215	JP 1996-523071	19960118
EP 1142867	A2	20011010	EP 2001-107877	19960118
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI				
AT 229498	E	20021215	AT 1996-905316	19960118
ES 2183937	T3	20030401	ES 1996-905316	19960118
CZ 291556	B6	20030416	CZ 1997-2340	19960118
PT 805796	T	20030430	PT 1996-96905316	19960118
EE 4111	B1	20030815	EE 1997-172	19960118
SK 283724	B6	20031202	SK 1997-987	19960118
TW 500714	B	20020901	TW 1996-85100690	19960122
IL 116846	A1	20021110	IL 1996-116846	19960122
NO 9703384	A	19970919	NO 1997-3384	19970722
FI 9703087	A	19970922	FI 1997-3087	19970722
BG 63383	B1	20011231	BG 1997-101841	19970821
US 6376538	B1	20020423	US 1997-875321	19970919
HK 1005241	A1	20030822	HK 1998-104006	19980508
AU 766538	B2	20031016	AU 2000-62432	20001002
US 2003083267	A1	20030501	US 2001-935461	20010822
US 6624152	B2	20030923		
US 2003018016	A1	20030123	US 2001-2341	20011023
US 6630512	B2	20031007		

PRIORITY APPLN. INFO.:

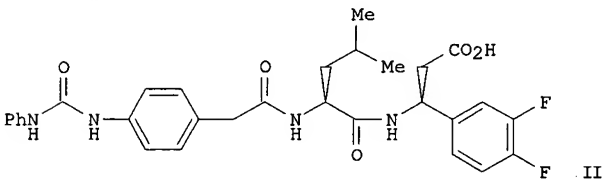
US 1995-376372	A2	19950123
AU 1996-49115	A3	19960118
EP 1996-905316	A3	19960118
WO 1996-US1349	W	19960118
US 1997-875321	A3	19970919

OTHER SOURCE(S): MARPAT 125:248489

GRAPHIC IMAGE:



I



II

ABSTRACT:
Novel dipeptide analogs I [X = CO2H, PO3H-, SO2R5, SO3H, OPO3H-, CO2R4, CONR42; Y = CO, SO2, PO2; n = 0-2; R1 = optionally substituted alkyl, alkenyl, alkynyl, aryl-fused cycloalkyl, cycloalkenyl, aryl, aralkyl, aralkenyl, aralkynyl,

alkoxy, alkenyloxy, aralkoxy, alkylamino, alkenylamino, alkynylamino, aryloxy, arylamino, N-alkylurea-substituted alkyl, heterocyclyl; R2 = H, aryl, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl-substituted alkyl; R2NCR3 = heterocyclic ring; R3 = natural, unnatural, modified, or substituted amino acid side chain; R4 = optionally substituted aryl, alkyl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, aryl-substituted alkyl, H, heterocyclyl, heterocyclylcarbonyl, aminocarbonyl, amido, alkylaminocarbonyl, arylaminocarbonyl, acylaminocarbonyl, acyl; R5 = alkyl, alkenyl, cycloalkyl, cycloalkenyl, aryl, aralkyl, aralkenyl, aralkynyl] are prepared as compds. useful for inhibition and prevention of **cell adhesion** and ***cell*** **adhesion**-mediated pathologies. This invention also relates to pharmaceutical formulations comprising these compds. and methods of using them for inhibition and prevention of **cell adhesion** and **cell adhesion**-mediated pathologies. The compds. and pharmaceutical compns. of this invention can be used as therapeutic or prophylactic agents. They are particularly well-suited for treatment of many inflammatory and autoimmune diseases. Thus, β-amino acid-containing dipeptide II, prepared by standard methods, displayed an IC50 of <50 nM in a **cell** ***adhesion*** inhibition assay.

L1 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:426723 CAPLUS
DOCUMENT NUMBER: 115:26723
TITLE: Identification of a tetrapeptide recognition sequence for the α2β1 integrin in collagen
AUTHOR(S): Staatz, William D.; Fok, Kam F.; Zutter, Mary M.; **Adams, Steven P.**; Rodriguez, Barbra A.; Santoro, Samuel A.
CORPORATE SOURCE: Sch. Med., Washington Univ., St. Louis, MO, 63110, USA
SOURCE: Journal of Biological Chemistry (1991), 266(12), 7363-7
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
To define the α2β1 integrin recognition sequence for the α1(I)-CB3 fragment of type I collagen, an overlapping set of synthetic peptides was prepared which completely spans the 148-amino acid α1(I)-CB3 fragment and the peptides were tested for ability to inhibit **cell** ***adhesion*** to collagen and laminin substrates. The minimal active recognition sequence defined by these expts. is a tetrapeptide of the sequence Asp-Gly-Glu-Ala (DGEA) corresponding to residues 435-438 of the type I collagen sequence. The DGEA-containing peptides effectively inhibited α2β1-mediated Mg2+-dependent adhesion of platelets, which use the α2β1 integrin as a collagen-specific receptor, to collagen but had no effect on α5β1-mediated platelet adhesion to fibronectin or α6β1-mediated platelet adhesion to laminin. In contrast, with T47D breast adenocarcinoma cells, which use α2β1 as a collagen/laminin receptor, adhesion to both collagen and laminin was inhibited by DGEA-containing peptides. Deletion of the alanine residue or substitution of alanine for either the glutamic or aspartic acid residues in DGEA-containing peptides resulted in marked loss of inhibitory activity. Evidently, the amino acid sequence DGEA serves as a recognition site for the α2β1 integrin complex on platelets and other cells.

L3 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:459047 CAPLUS
DOCUMENT NUMBER: 127:188708
TITLE: High molecular weight kininogen peptides inhibit the formation of kallikrein on endothelial cell surfaces and subsequent urokinase-dependent plasmin formation
AUTHOR(S): Lin, Yingzhang; Harris, Robert B.; Yan, Wuyi; Mccrae, Keith R.; Zhang, Hong; Colman, Robert W.
CORPORATE SOURCE: Sol Sherry Thrombosis Research Center, Temple University School of Medicine, Philadelphia, PA, 19140, USA
SOURCE: Blood (1997), 90(2), 690-697
CODEN: BLOOAW; ISSN: 0006-4971
PUBLISHER: Saunders
DOCUMENT TYPE: Journal
LANGUAGE: English

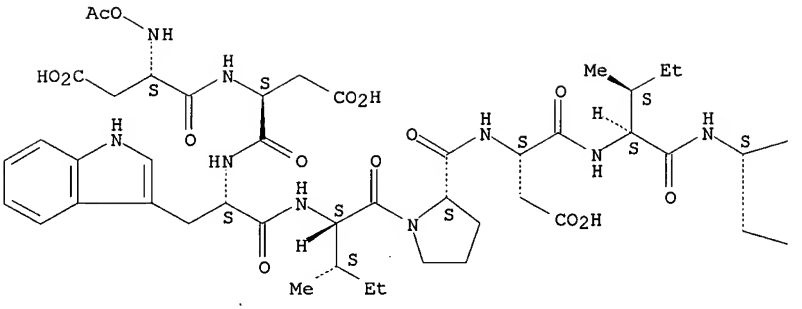
AB A sequence of 31 amino acids (S565-K595) in domain 6 of the light chain of high mol. weight kininogen (HK) has previously been shown to be responsible for the binding of plasma prekallikrein (PK) or kallikrein. To find effective peptides that might block binding between HK and PK on cell surfaces, a new series of synthetic peptides has now been prepared that incorporates portions of this binding domain sequence. For mapping the minimal sequence within HK, these new peptides were tested for their ability to compete with HK for binding PK in a cell-free system and on human umbilical vein endothelial cells (HUVEC). In the former, at pH 7.4, the Kds for binding between kallikrein and either D567-K595, S565-P594, D567-S593, or D567-T591 were all similar to that for the binding of S565-K595 (0.2 to 0.4 μmol/L), but those for the binding of D568-K595, W569-K595, and D567-P589 were an order of magnitude greater (Kd = 2 to 5 μmol/L). D567-S586, the shortest chain length of the N-and C-terminal truncation sequences tested, does not effectively compete with kininogen for kallikrein binding (Kd = 100 μmol/L). These results imply that D567-T591, a 25-residue peptide (HK25c), contains sufficient structural information for binding kallikrein in solution D567-T591 also is the min. structural sequence to block binding of kallikrein to HUVEC-bound HK (IC50 = 50 nmol/L) and to inhibit PK activation to kallikrein on the cell surface (IC50 = 80 nmol/L). In addition, D567-T591 also inhibits the generation of kallikrein-activated urokinase, which activates plasminogen to plasmin (IC50 = 100 nmol/L). Thus, HK-derived peptides may be useful compds. for modulating excessive fibrinolysis and hypotension in sepsis and multiple trauma.

IT **191615-09-5 191615-11-9 191615-12-0**
191615-13-1 191615-14-2 191615-15-3
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(kininogen peptides inhibit formation of kallikrein on endothelial cell surfaces and subsequent urokinase-dependent plasmin formation)

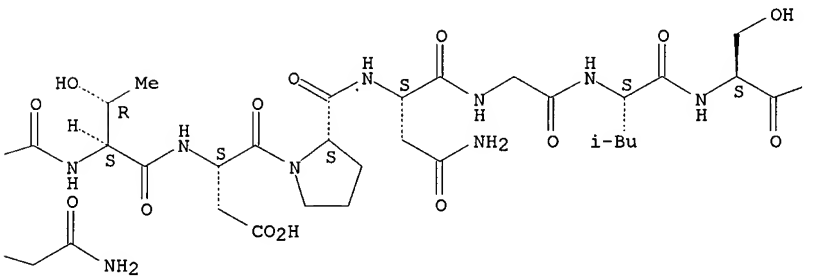
RN 191615-09-5 CAPLUS
CN L-Lysinamide, N-acetyl-L-α-aspartyl-L-α-aspartyl-L-tryptophyl-L-isoleucyl-L-prolyl-L-α-aspartyl-L-isoleucyl-L-glutaminyl-L-threonyl-L-α-aspartyl-L-prolyl-L-asparaginylglycyl-L-leucyl-L-seryl-L-phenylalanyl-L-asparaginyl-L-prolyl-L-isoleucyl-L-seryl-L-α-aspartyl-L-phenylalanyl-L-prolyl-L-α-aspartyl-L-threonyl-L-threonyl-L-seryl-L-prolyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

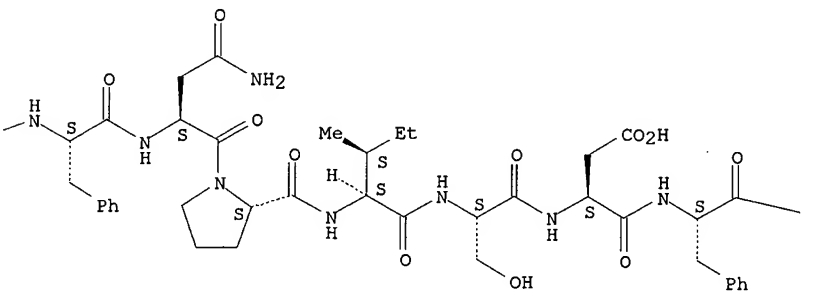
PAGE 1-A



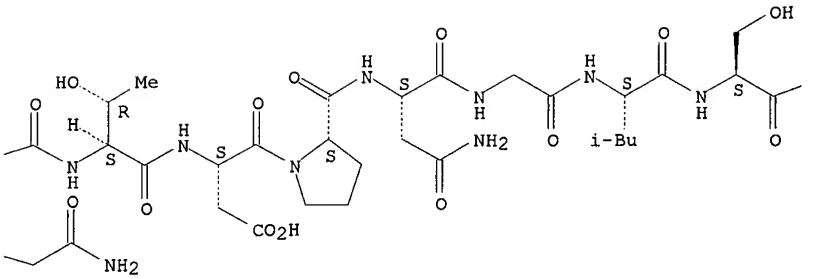
PAGE 1-B



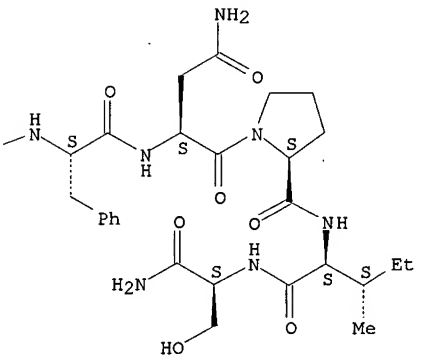
PAGE 1-C



PAGE 1-B



PAGE 1-C



L3 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	1997:331464 CAPLUS
DOCUMENT NUMBER:	127:62450
TITLE:	Physical and biological significance of peptide sequences mediating the interaction between high molecular weight kininogen and plasma prekallikrein
AUTHOR(S):	Colman, Robert W.; Lin, Yingzhang; Yan, Wuyi; McCrae, Keith R.; Shenoy, Shilpa S.; Harris, Robert B.
CORPORATE SOURCE:	Sol Sherry Thrombosis Research Center, Temple University School of Medicine, Philadelphia, PA, 19140, USA
SOURCE:	Immunopharmacology (1997), 36(2,3), 193-200 CODEN: IMMUDP; ISSN: 0162-3109
PUBLISHER:	Elsevier
DOCUMENT TYPE:	Journal
LANGUAGE:	English

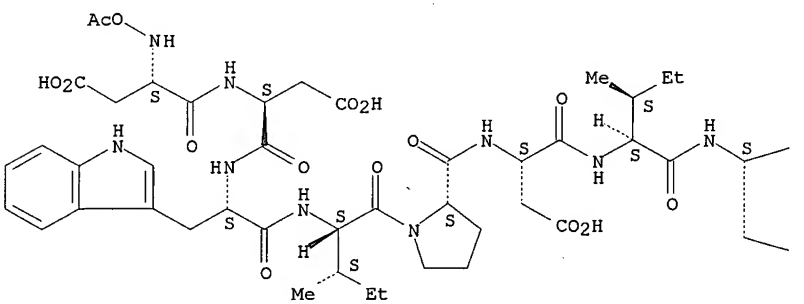
AB HK31 (S565-K595) has previously been shown to encompass the binding domain for plasma prekallikrein (PK) within domain 6 of high mol. weight kininogen (HK). The complementary binding domain for HK within PK is mapped to PK56 (F56-G86), in the Apple 1 domain and to PK266 (K266-C295) in the Apple 4 domain. Isothermal titration calorimetry demonstrated that either PK peptide binds to HK31 in 1:1 stoichiometry. Binding of the alternate PK peptide into a ternary complex is facilitated nearly 2-fold. Fluorescence emission spectroscopy revealed that only the binding of PK56 caused a limited decrease in intrinsic tryptophan fluorescence emission intensity of HK31. We conclude that the two PK peptides bind to the HK peptide at different sites. To map the minimal sequence within HK31, truncated new peptides were tested for their ability to compete with HK for binding PK in a cell-free system. D567-T591, a 25-residue peptide which contains sufficient structural information for binding kallikrein in solution, blocked the binding of kallikrein to HK bound to endothelial cells and inhibited PK activation to kallikrein and the generation of kallikrein-activated urokinase on endothelial cell surfaces. HK-derived peptides could modulate excessive fibrinolysis and hypotension in sepsis and multiple trauma.

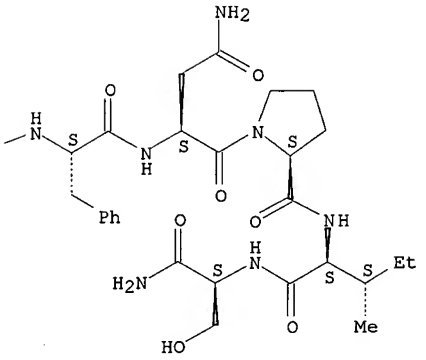
IT **191615-09-5 191615-11-9 191615-12-0**
191615-13-1 191615-14-2 191615-15-3
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(phys. and biol. significance of peptide sequences mediating the interaction between high mol. weight kininogen and plasma prekallikrein)

RN 191615-09-5 CAPLUS

CN L-Lysinamide, N-acetyl-L-α-aspartyl-L-α-aspartyl-L-tryptophyl-L-isoleucyl-L-prolyl-L-α-aspartyl-L-isoleucyl-L-glutaminyl-L-threonyl-L-α-aspartyl-L-prolyl-L-asparaginylglycyl-L-leucyl-L-seryl-L-phenylalanyl-L-asparaginyl-L-prolyl-L-isoleucyl-L-seryl-L-α-aspartyl-L-phenylalanyl-L-prolyl-L-α-aspartyl-L-threonyl-L-threonyl-L-seryl-L-prolyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





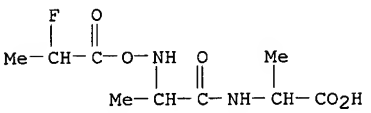
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:264078 CAPLUS
DOCUMENT NUMBER: 125:52422
TITLE: On the low carrier radiofluorination of peptides and proteins by prosthetic groups
AUTHOR(S): Guhlke, Stefan
CORPORATE SOURCE: Inst. Nuklearchem., Forschungszent. Juelich G.m.b.H., Juelich, D-52425, Germany
SOURCE: Berichte des Forschungszentrums Juelich (1995), Juel-3136, 1-135
CODEN: FJBEE5; ISSN: 0366-0885
DOCUMENT TYPE: Report
LANGUAGE: German

AB 18F-fluoroacylation and 18F-fluoroamidation were studied for no-carrier-added (n.c.a.) labeling of peptides and proteins. Following deprotection, formation of imidazolides, succinimide esters or nitrophenyl esters as reactive intermediates were investigated. A route to p-nitrophenylesters via 18F-fluorinated acid chloride was developed. The activity of the 18F-labeled acylation agents towards amines with different steric hindrance and basicities was compared. Even with low reactive aniline derivative almost quant. formation of the corresponding 18F-fluorinated amides was observed The somatostatin analog octreotide was selectively 18F-fluoroacylated at the N-terminus of the cyclic octapeptide by the ε-Lys-Boc protected precursor. Binding studies with the non-radioactive fluoropropionylated standard compound and rat cortex membranes revealed high affinity (pKi = 8.6) to the somatostatin receptor and almost unchanged biol. activity compared to the native octreotide. For 18F-fluoroamidation, Boc-protected amines were used as precursors in the n.c.a. nucleophilic fluorination step. 3-[18F]fluoropropylamine was optimal for 18F-fluoroamidation (radiochem. yield >90%) and reactivity towards acylation agents. Thus derivs. of biotin were labeled with radiochem. yields (>70%) by 18F-fluoroacylation as well as 18F-fluoroamidation. Both methods led to labeled compds. with full biol. activity as shown by their binding ability to the protein avidin. Avidin was labeled by the 18F-fluoroacylation method, preservation of the biol. activity was proved by affinity chromatog.

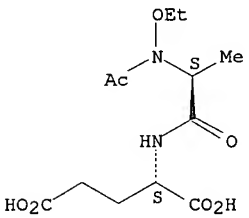
IT **178181-39-0**
RL: ANT (Analyte); ANST (Analytical study)
(low carrier radiofluorination of peptides and proteins by prosthetic

groups)
RN 178181-39-0 CAPLUS
CN Alanine, N-(2-fluoro-1-oxopropoxy)alanyl- (9CI) (CA INDEX NAME)



L3 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1991:7167 CAPLUS
DOCUMENT NUMBER: 114:7167
TITLE: Conformational states of Eto-Ac-Gly-L-Glu and Eto-Ac-L-Ala-L-Glu by NMR and theoretical calculations
AUTHOR(S): Kidric, J.; Golic, S.; Solmajer, T.; Harb, V.; Hadzi, D.
CORPORATE SOURCE: Lek -Pharm. Chem. Works, Boris Kidric Inst. Chem., Ljubljana, 61115, Yugoslavia
SOURCE: Bulletin of Magnetic Resonance (1989), 11(3-4), 398
CODEN: BUMRDT; ISSN: 0163-559X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The conformational states of the title dipeptides were determined by NMR data and mol. mechanics calcn.
IT **130878-88-5**
RL: PRP (Properties)
(conformation of)
RN 130878-88-5 CAPLUS
CN L-Glutamic acid, N-(N-acetyl-N-ethoxy-L-alanyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1985:542381 CAPLUS
DOCUMENT NUMBER: 103:142381
TITLE: Oxazole derivatives
INVENTOR(S): Kitaura, Yoshihiko; Kakaguchi, Osamu; Hemmi, Keiji; Acatani, Matsuhiko; Takeno, Hidekazu; Okada, Satashi; Tanaka, Hirakazu; Hashimoto, Masashi; Kuroda, Yashio; et al.
PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan
SOURCE: U.S., 157 pp. Division of U.S. 4,349,466.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4458078	A	19840703	US 1982-377841	19820513
US 4311640	A	19820119	US 1979-93523	19791113
HU 23914	O	19821028	HU 1979-FU379	19791113
HU 181434	B	19830728		
ES 485962	A1	19800701	ES 1979-485962	19791114
AT 1388	E	19820815	AT 1979-104479	19791114
ES 493817	A1	19810716	ES 1980-493817	19800729
AU 8060939	A1	19810319	AU 1980-60939	19800730
AU 544864	B2	19850620		
US 4322341	A	19820330	US 1980-201241	19801027
US 4349466	A	19820914	US 1981-229072	19810128
ES 499470	A1	19820816	ES 1981-499470	19810216
US 4487763	A	19841211	US 1982-402440	19820728
US 4512980	A	19850423	US 1982-402438	19820728
US 4539155	A	19850903	US 1983-515590	19830721
US 32992	E	19890718	US 1984-611733	19840518

PRIORITY APPLN. INFO.:

GB 1978-44346	A	19781114
GB 1979-26705	A	19790731
GB 1979-35401	A	19791011
GB 1979-35730	A	19791015
GB 1979-36000	A	19791017
GB 1979-37343	A	19791029
US 1979-93523	A2	19791113
US 1980-110020	A2	19800107
US 1980-147710	A2	19800508
US 1980-149441	A2	19800513
US 1980-171024	A2	19800722
US 1980-201241	A2	19801027
US 1981-229072	A3	19810128
EP 1979-104479	A	19791114
GB 1980-10459	A	19800328
US 1980-193453	A3	19801003
US 1982-377841	A3	19820513

OTHER SOURCE(S): CASREACT 103:142381
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Oxazoles I (R = protective group, R1 = H or protective group) and II are intermediates for the preparation of pharmacol. active peptides. The synthesis of the peptides (>100) was carried out by various classical methods. Thus, glutamyl(diaminopimelyl)-containing peptide III was prepared from IV (Boc = Me3CO2C) by coupling, hydrogenolysis, deprotection, and hydrazide cleavage reactions. The product peptides have immune response-enhancing activity, mitogenic activity, antiinfection and anticancer activities, etc. (data tabulated).

IT **96518-35-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and deprotection-hydrazide cleavage of)

RN 96518-35-3 CAPLUS

CN Glycine, N-(thienylacetyl)-L-alanyl-D-γ-glutamyl-N6-[(1,1-dimethylethoxy)carbonyl]-7-[2-[(1,1-dimethylethoxy)carbonyl]hydrazino]-7-oxo-L-erythro-2,6-diaminoheptanoyl- (9CI) (CA INDEX NAME)